

Abstract of the Disclosure

A thin film deposition reactor including a reactor block 110 on which a wafer is placed, a shower head plate 120 for uniformly maintaining a predetermined pressure by covering the reactor block 110, a wafer block 140 installed in the reactor block 110, on which the wafer is to be seated, an exhausting portion (not shown) connected to the reactor block 110 for exhausting a gas within the reactor block 110 to the outside, a first connection line 121 installed on the shower head plate 120, through which a first reaction gas and/or inert gas supplied flow, a second connection line 122 installed on the shower head plate 120, through which a second reaction gas and/or inert gas supplied flow, and a diffusion plate 130 installed under the shower head plate 120. The diffusion plate 130 has a plurality of spray holes 131, which are connected to the first connection line 121 and face the upper surface of a wafer *w* to spray the first reaction gas and/or inert gas onto the wafer *w*, and a plurality of nozzles 133, which are connected to the second connection line 122 and look toward the inner side surface of the reactor block 110 to spray the second reaction gas and/or inert gas toward the edges of the wafer *w*.